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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/026,826	12/27/2001	Sang-Ho Choi	P67479US0	9854
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MAYER, BROWN, ROWE & MAW LLP 1909 K STREET, N.W. WASHINGTON, DC 20006			EXAMINER HOM, SHICK C	
			ART UNIT	PAPER NUMBER
			2616	

DATE MAILED: 06/13/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/026,826

Applicant(s)

CHOI ET AL.

Examiner

Shick C. Hom

Art Unit

2616

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 13 March 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-6 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-6 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
- 1) ☒ Certified copies of the priority documents have been received.
  - 2) ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

**DETAILED ACTION**

***Response to Arguments***

1. Applicant's arguments filed 3/13/06 have been fully considered but they are not persuasive.

In page 4 lines 8-25 of the remarks, applicant argued that Barna in Fig. 2 does not show a channel link passing through a T-BSC associated with a T-PDSN, a S-BSC associated with a S-PDSN, a S-PCF and the S-PDSN is not persuasive because Fig. 2 shows the components S-BSC, T-BSC, S-PCF, T-PCF, S-PDSN, T-PDSN and communications between these components for inter-PDSN handoff of a mobile station, and further paragraphs 0039-0040 which recite the source BSC and the source PDF being associated with a source PDSN-1; the target BSC and the target PCF being associated with a target PDSN; the connection between the T-PCF and T-PDSN; the X-PCF and S-PDSN, clearly suggest and anticipate a channel link passing through the T-BSC associated with the T-PDSN, the S-BSC associated with the S-PDSN, the S-PCF and the S-PDSN. In page 4 line 25 to page 5 line 2 of the remarks, applicant argued that Barna and Madour do not disclose a channel link passing between the Target BSC and Source BSC is not persuasive because Madour in Fig. 2 shows the link 202 between the Source BSC 22 and the MSC 26 whereby the MSC 26 is connected

Art Unit: 2616

to the Target BSC 24 via link 204 clearly anticipate the channel link passing between the Target BSC and Source BSC.

In response to applicant's argument in page 5 line 9 to page 6 9 that there is no suggestion to combine the references, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, the motivation for using the MSC in establishing a channel link between the S-BSC and the T-BSC in the active mode as taught by Madour in the communication method of Barna et al. being that it provides more efficiency for the system since the system uses a single center for handoff of the mobile station rather than having duplicate circuits for inter-PDSN handoff.

### ***Drawings***

2. The drawings are objected to because in Fig. 4, delete typo "S-PSDN" 121 and "T-PSDN" 123 and insert ---S-PDSN--- 121 and --T-PDSN--- 123, respectively. Corrected drawing sheets in

compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Art Unit: 2616

***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary.

Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

5. Claims 1-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Barna (2002/0046277) in view of Madour (2002/0021681).

Art Unit: 2616

Regarding claim 1:

Barna discloses the method for performing a hard handoff (see paragraph 0019 which recite inter-PDSN handoff of a mobile station), comprising: (a) setting up a channel link passing through a target base station controller (T-BSC) associated with a target-PDSN (T-PDSN), a source base station controller (S-BSC) associated with a source-PDSN (S-PDSN), a source packet control function (S-PCF) and the S-PDSN by establishing a channel link between the S-BSC and the T-BSC in an active packet session mode (in Fig. 2 see the link passing through the target-BSC 64, the source-BSC 61, the source PCF 62, the source-PDSN 63, the target-PDSN 66, including the link between the source-BSC 61 and target-BSC 64 and paragraph 0016 which recite establishing the handoff during the data session); (b) performing the hard handoff between the S-BSC, the T-BSC and a mobile station (MS) (see paragraph 0039-0040 which recite the inter-PDSN handoff of a mobile station from the source base station controller and the target BSC); and (c) transmitting or receiving user packet data exchanged between the MS and the T-BSC through the established channel link to or from the S-PDSN in case the hard handoff is completed (see paragraphs 0035, 39, and 0041 which recite at the completion of the handoff the associated T-BSC and the T-PDSN).

Regarding claim 2:

Art Unit: 2616

Barna et al. disclose further comprising the steps of: (d) establishing a channel link between the T-BSC, a target packet control function (T-PCF) and a target-PDSN (TPDSN) in a dormant packet session mode (see Fig. 2 which shows the link between the T-BSC, T-PCF and T-PDSN and paragraph 0043 which recite the dormant packet session mode); (e) releasing the channel link set up between the S-BSC, the S-PCF and the S-PDSN (see paragraph 0043 which recite releasing the S-PDSN); and (g) performing a point-to-point (PPP) establishing process and a mobile Internet protocol (MIP) registering process between the MS and the T-PDSN (see paragraph 0040 which recite the MS engaged in the internet session including the registration request message to the PDSN-2 to establish the PPP connection).

For claims 1-6, Barna et al. disclose all the subject matter of the claimed invention with the exception of the mobile station center for setting up the channel link passing through the T-BSC, S-BSC , S-PCF, S-PDSN as in claims 1, 2; wherein the step (a) includes the step of: (a1) transmitting a Handoff Required message from the S-BSC to the MSC and establishing the channel link between the S-BSC and the MSC as in claim 3; wherein, in the step (a1), the channel link between the S-BSC and the MSC is established by including a circuit identification code (CIC) as an extender in the Handoff Required message as in



Art Unit: 2616

claim 4; wherein the step (a) includes the step of: (a2) transmitting a Handoff Request message from the MSC to the T-BSC and establishing the channel link between the MSC and the T-BSC as in claim 5; and wherein, in the step (a2), the channel link between the MSC and the T-BSC is set up by including a circuit identification code (CIC) as an extender in the Handoff Request message as in claim 6.

Madour from the same or similar fields of endeavor teach that it is known to provide the mobile station center for setting up the channel link passing through the T-BSC, S-BSC, S-PCF, S-PDSN (see Fig. 3b, the MSC 36, the BSC-T 34, BSC-S 32, PCF-S 33, and PDSN-S 37); wherein the step (a) includes the step of: (a1) transmitting a Handoff Required message from the S-BSC to the MSC and establishing the channel link between the S-BSC and the MSC (see Fig. 2, the handoff required message 202 from the BSC-S 22 to MSC 26); wherein, in the step (a1), the channel link between the S-BSC and the MSC is established by including a circuit identification code (CIC) as an extender in the Handoff Required message (see paragraph 0022 which recite the handoff required message to the MSC includes information and address to help with the handoff clearly reads on the circuit identification code (CIC)); wherein the step (a) includes the step of: (a2) transmitting a Handoff Request message from the

Art Unit: 2616

MSC to the T-BSC and establishing the channel link between the MSC and the T-BSC (see Fig. 2 the Request message 204 from the MSC 26 to the T-BSC 24); and wherein, in the step (a2), the channel link between the MSC and the T-BSC is set up by including a circuit identification code (CIC) as an extender in the Handoff Request message (see paragraph 0022 which recite the handoff required message to the MSC includes information and address to help with the handoff clearly reads on the circuit identification code (CIC)).

Thus, it would have been obvious to the person having ordinary skill in the art at the time the invention was made to provide the mobile station center for setting up the channel link; wherein the step (a) includes the step of: (a1) transmitting a Handoff Required message from the S-BSC to the MSC and establishing the channel link between the S-BSC and the MSC; wherein, in the step (a1), the channel link between the S-BSC and the MSC is established by including a circuit identification code (CIC) as an extender in the Handoff Required message; wherein the step (a) includes the step of: (a2) transmitting a Handoff Request message from the MSC to the T-BSC and establishing the channel link between the MSC and the T-BSC; and wherein, in the step (a2), the channel link between the MSC and the T-BSC is set up by including a circuit identification

Art Unit: 2616

code (CIC) as an extender in the Handoff Request message as taught by Madour in the communications method of Barna et al. The mobile station center; wherein the step (a) includes the step of: (a1) transmitting a Handoff Required message from the S-BSC to the MSC and establishing the channel link between the S-BSC and the MSC; wherein, in the step (a1), the channel link between the S-BSC and the MSC is established by including a circuit identification code (CIC) as an extender in the Handoff Required message; wherein the step (a) includes the step of: (a2) transmitting a Handoff Request message from the MSC to the T-BSC and establishing the channel link between the MSC and the T-BSC; and wherein, in the step (a2), the channel link between the MSC and the T-BSC is set up by including a circuit identification code (CIC) as an extender in the Handoff Request message can be implemented by connecting the MSC including the transmission of Handoff Required message and circuit identification code being as an extender in the Handoff Request message of Madour between the MS, source-BSC, target-BSC, and the PDSNs of Barna et al. The motivation for using the MSC including the transmission of Handoff Required message and circuit identification code being as an extender in the Handoff Request message as taught by Madour in the communication method of Barna et al. being that it provides more efficiency for the

Art Unit: 2616

system since the system uses a single center for handoff of the mobile station rather than having duplicate circuits for inter-PDSN handoff.

### ***Conclusion***

6. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Shick C. Hom whose telephone number is 571-272-3173. The examiner can normally be reached on Mon-Fri.

Art Unit: 2616

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Seema Rao can be reached on 571-272-3174. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

SH

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